

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

First Named

Inventor : Romualdo T. Impas

Appln. No.: 09/520,389

Filed : March 8, 2000

For : SYSTEM AND METHOD FOR  
IMPLEMENTING AN ANCILLARY  
FOR A CURSOR

Docket No.: M61.12-0177

Appeal No.

Group Art Unit: 2174

Examiner: M. R. R. R.

OCT 30 2003

Technology Center 2100

**TRANSMITTAL OF APPEAL BRIEF**  
**(PATENT APPLICATION - 37 C.F.R. § 192)**

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

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24<sup>th</sup> DAY OF October, 2003

Christopher L. Holt  
PATENT ATTORNEY

Sir:

Transmitted herewith in triplicate is the Appeal Brief in  
this application with respect to the Notice of Appeal filed on June  
30, 2003.

FEE STATUS

[ ] Small entity status under 37 C.F.R. §§ 1.9 and 1.27  
is established by a verified statement.

FEE FOR FILING APPEAL BRIEF

Pursuant to 37 C.F.R. 1.17(c) the fee for filing the  
Appeal Brief is \$330.00.

The Director is authorized to charge any additional fees  
associated with this paper or credit any overpayment to Deposit  
Account No. 23-1123. A duplicate copy of this communication is  
enclosed.

Respectfully submitted,

WESTMAN, CHAMPLIN & KELLY, P.A.

By:

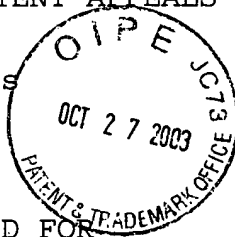
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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

First Named  
Inventor : Romualdo T. Impas  
Appln. No. : 09/520,389  
Filed : March 8, 2000  
For : SYSTEM AND METHOD FOR  
IMPLEMENTING AN IMAGE  
ANCILLARY TO A CURSOR  
Docket No.: M61.12-0177



Appeal No.

Group Art Unit: 2174

Examiner: M. Tran

**RECEIVED**

OCT 30 2003

**BRIEF FOR APPELLANT** Technology Center 2100

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24<sup>th</sup>  
DAY OF October, 2003

*Carita J. Hales*  
PATENT ATTORNEY

Sir:

This is an appeal from a Final Office Action dated February 26, 2003, in which claims 1, 3-23, 26, 29, 31-53 and 56 were finally rejected.

REAL PARTY IN INTEREST

Microsoft Corporation, a corporation organized under the laws of the state of Washington, and having offices at One Microsoft Way, Redmond, Washington 98052, has acquired the entire right, title and interest in and to the invention, the application, and any and all patents to be obtained therefor, as set forth in the Assignment filed with the patent application and recorded on Reel 010661, frame 0376.

RELATED APPEALS AND INTERFERENCES

There are no known related appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

STATUS OF THE CLAIMS

- I. Total number of claims in the application: 48
- II. Status of all the claims.
- A. Claims cancelled: 2,24,25,27,28,30,54,55,57-61
  - B. Claims withdrawn but not cancelled: ---
  - C. Claims pending: 1,3-23,26,29,31-53,56
  - D. Claims allowed: ---
  - E. Claims rejected: 1,3-23,26,29,31-53,56
- III. Claims on appeal
- A. The claims on appeal are: 1,3-23,26,29,31-53,56
  - B. See **Exhibit A** for a copy of the claims on appeal

STATUS OF AMENDMENTS

Appellants proposed no amendments to the claims subsequent to the final rejection.

SUMMARY OF INVENTION

I. BRIEF BACKGROUND

Conventional computers, such as desktop computers, typically include a visual display screen, such as a cathode ray tube (CRT). Conventional computers also typically include a user input pointing device, such as a mouse. The mouse typically includes a ball and position encoders. As the user moves the mouse over a work surface, the ball rotates and the position encoders provide position information to the computer. The position information is indicative of the movement of the mouse. Based on the position information, the system typically moves a cursor about the visual display screen allowing the user to indicate a target on the visual display screen, each target being associated with a function or collection of data.

A conventional mouse also includes one or more actuator buttons configured to be selectively depressed by an operator. Where the operator has located a target (e.g., an icon) through placement of the cursor on the visual display screen, the user is able to actuate a feature or program represented by the target by simply depressing an appropriate one of the actuator buttons.

In a conventional system, the cursor is associated with an arrow, or some other visible display element that moves about the screen. With regard to depth perception, the cursor display element or display image is commonly treated the same as any other object on the display screen. Therefore, when the display screen contains a large number of icons, windows, or other display elements, the cursor image can be difficult to locate and follow during operation.

## II. GENERAL DESCRIPTION OF THE CLAIMED INVENTION

Embodiments of the present invention pertain to specific methods for generating a display of a cursor image (i.e., 204, 222, 242) relative to an associated ancillary image (i.e., 206, 236/238). In one embodiment, the cursor image and ancillary image are formed and displayed as a combined composite image (i.e., see FIG. 5 and p 13, lines 1-8). In another embodiment, the cursor image and the ancillary image are formed integrally with one another and displayed as a single image (i.e., see FIG. 5 and p. 24, lines 19-22). In another embodiment, a method is implemented to enable the ancillary image to be displayed as an image formed by light impinging on a surface after passing through the cursor image (i.e., see p. 23, line 21 through p. 24 line 11).

In another embodiment, a series of steps is implemented to produce a translucent ancillary image associated with an opaque cursor image (i.e., see FIG. 2 and related description). In one embodiment, the produced translucent ancillary image is shadow-like.

### ISSUES

Whether claims 1, 21-23, 26, 29, 31-53 and 56 are anticipated by, or are obvious in view of, Martin et al. (U.S. Patent No. 5,655,066) (**See Exhibit B**).

Whether claims 3-20 and 31-52 are obvious over Martin et al., and further in view of Dawson et al. (U.S. Patent No. 5,270,688) (**See Exhibit C**).

### GROUPING OF CLAIMS

The following groupings of claims are made solely in the interest of consolidating issues and expediting this Appeal. No grouping of claims is intended to be, nor should be interpreted as being, any form of admission or statement as to the scope or obviousness of any limitation.

- I. Claims 1 and 29 stand or fall together;
- II. Claims 3 and 31 stand or fall together;
- III. Claims 4 and 32 stand or fall together;
- IV. Claims 5 and 33 stand or fall together;
- V. Claims 6 and 34 stand or fall together;
- VI. Claims 7 and 35 stand or fall together;
- VII. Claims 8 and 36 stand or fall together;
- VIII. Claims 9 and 37 stand or fall together;
- IX. Claims 10 and 38 stand or fall together;
- X. Claims 11 and 39 stand or fall together;
- XI. Claims 12 and 40 stand or fall together;
- XII. Claims 13 and 41 stand or fall together;
- XIII. Claims 14 and 42 stand or fall together;
- XIV. Claims 15 and 43 stand or fall together;
- XV. Claim 16 stands on its own;
- XVI. Claims 17 and 44 stand or fall together;
- XVII. Claims 18 and 45 stand or fall together;

XVIII. Claims 19 and 46 stand or fall together;  
XIX. Claims 20 and 47 stand or fall together;  
XX. Claim 21 stands on its own;  
XXI. Claim 22 stands on its own;  
XXII. Claims 23 and 26 stand or fall together;  
XXIII. Claims 48 and 49 stand or fall together;  
XXIV. Claim 50 stands on its own;  
XXV. Claim 51 stands on its own;  
XXVI. Claim 52 stands on its own; and  
XXVII. Claims 53 and 56 stand or fall together.

#### ARGUMENT

##### **Group I: Claims 1 and 29**

In the Final Office Action, claims 1 and 29 were rejected under 35 U.S.C. §102(b) as being anticipated by Martin et al. Claims 1 and 29 are both independent claims.

In order to reject a claim under 35 U.S.C. §102(b), the Examiner must find every limitation of the claim in the cited reference. Appellant respectfully submits that independent claims 1 and 29 recite limitations that are neither taught nor suggested by Martin et al.

The Martin et al. reference does appear to show an element displayed on a display screen in association with a shadow. However, there is simply no indication, whatsoever, of how Martin et al. creates and displays the element and its associated shadow image. The only significant recitation in Martin et al. that is directed to how a shadow image is created is found at column 6, lines 37-38. At that point, Martin et al. states "conventional techniques exist for displaying a shadow which corresponds to a displayed object." There is no indication as to whether the shadow image is created separately from the cursor image, nor is there any indication that the shadow image is

even created from the cursor image, or whether it is created anew.

By contrast, independent claims 1 and 29 both recite a method wherein a cursor image is first obtained, then an ancillary image is obtained, and then a composite indication is formed "indicative of a composite image containing both the cursor image and the ancillary image...". In accordance with Appellant's claims 1 and 29, it is the composite image that is displayed. There is simply no indication, whatsoever, in Martin et al., that a composite image is created and displayed as claimed.

Thus, claims 1 and 29 recite elements that are neither taught nor suggested by the cited reference. It is therefore respectfully submitted that these claims are allowable in their present form. Accordingly, Appellant respectfully requests that the Board reverse the Examiner's rejection of claims 1 and 29.

**Group II: Claims 3 and 31**

In the Final Office Action, claims 3 and 31 were rejected under 35 U.S.C. §103(a) as being obvious over Martin et al. in view of Dawson et al. Claims 3 and 31 are dependent upon independent claims 1 and 29, respectively.

As was mentioned above, Appellant believes independent claims 1 and 29 to be patentably distinguishable from Martin et al. It is respectfully submitted that Dawson et al. does not remedy the inability of Martin et al. to teach or suggest the claim limitations of independent claims 1 and 29. Therefore, Appellant submits that dependent claim 3 and 31 are patentable at least for their dependency on independent claims 1 and 29. However, Appellant also submits that dependent claims 3 and 31 are also patentable based on the merit of their own recited claim limitations.

According to Section 2142 of the Manual of Patent Examining Procedure (M.P.E.P.), the examiner bears the initial burden of factually supporting any *prima facie* conclusions of

obviousness. In order to establish a *prima facie* case of obviousness in instances where multiple references are cited in combination, the Examiner must show 1) that a suggestion exists for combining the references, and 2) that the combined references teach or suggest all the recited claim limitations. Id. For reasons that will be discussed thoroughly below, it is respectfully submitted that, with regard to claims 3 and 31, the Examiner in the present case has failed to support any *prima facie* conclusion of obviousness.

Dependent claims 3 and 31 generally pertain to the acquisition of a cursor indication within the context of the creation and display of an ancillary image relative to a cursor image. In accordance with the claims, a cursor AND-mask is obtained as the cursor indication.

The Dawson reference, on the other hand, has nothing to do with creating an image that is ancillary to a cursor image. In fact, the Dawson reference doesn't even pertain to the creation or display of any kind of ancillary image. Dawson et al. only teaches that a system should provide a large contrast between a background and a cursor (or overlay). Dawson et al. states that prior systems simply inverted the gray code indication of the background color in order to generate the cursor image. Such a system apparently works well where the cursor and background are simply black and white. However, if the colors can reside in a middle shade of the gray scale, then the simple gray scale inversion does not work. For example, if the background color is represented by the gray scale value "01111111", an inversion of that results in the gray scale value 10000000) which would barely be discernable from the first color.

In order to address the described problem, Dawson et al. compares the pixel color value for the background to a threshold. If the background color for the chosen pixel is greater than the threshold, then the color for the cursor value is



set to a minimum value. If the background color for the chosen pixel is less than the threshold, then the color value for the cursor is set to a maximum value. This guarantees that the color of the cursor will be at least one half of the total scale of shades away from the background color. Of course, this has nothing, whatsoever, to do with generating a cursor ancillary image or shadow. As was discussed above, Martin et al. fails to teach or suggest any means for generating an ancillary image or shadow. Certainly neither of the cited references describes obtaining a cursor AND-mask to assist in the generation of an image that is ancillary to a cursor image.

It is fundamental that rejections under 35 U.S.C. §103 must be based on evidence comprehended by the language of that section. In re Grasselli, 713 F.2d 731, 739, 218 USPQ 769, 775 (Fed. Cir. 1983). The factual inquiry as to whether an invention is obvious in view of prior art must be based on objective evidence of record. In re Lee, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002). In the present case, the Examiner rejects claims 3 and 31 based on a combination of references that fails to teach or suggest specifically recited claim elements. The Examiner does not give any indication as to why one skilled in the art would have been so motivated to conceive features that are neither taught nor suggested by the cited references. No specific citations are made to any of the cited references that would demonstrate a teaching or suggestion to support a finding that the claimed features are obvious. No explanation is provided as to what knowledge possessed or specific principle known by a skilled artisan would lead to conception of the claimed features. No recognition is given to applicable trends in the art. No explanation is given as to how or why one skilled in the art would be lead to the claimed invention.

Further, the Examiner has provided absolutely no rational in the present case as to why it would be obvious to

combine the Martin and Dawson references. In fact, the two references are related to two applications within the art that are remotely related at best. Appellant respectfully points out that no objective evidence, such as knowledge and trends in the art, has been provided to demonstrate that a Martin-Dawson combination would be obvious.

Appellant has been left to assume that the only conclusion that can be reached from the alleged obviousness is the impermissible hindsight gleaned from the present invention. See, e.g., Ex parte Haymond, 41 USPQ2d 1217, 1220 (BdPatApp&Int 1996) (the examiner may not, because he doubts that the invention is patentable, resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in the factual basis). Simply stated, the Office Actions of record do not provide any objective evidence that shows a motivation as to why Appellant's claims 3 and 31 are obvious in view of the cited references.

For all of the above-discussed reasons, Appellant submits that the cited references, considered independent or in combination, fail to teach or suggest all of the elements recited in claims 3 and 31. It is further submitted that the Examiner has failed to provide any objective evidence that such claimed elements represent obvious improvements, and has also failed to provide any objective evidence that it would be obvious to combine the cited references. Appellant therefore submits that no *prima facie* case of obviousness has been made. Accordingly, Appellant respectfully requests that the Board reverse the Examiner's rejection of claims 3 and 31.

#### **Group III: Claims 4 and 32**

In the Final Office Action, claims 4 and 32 were rejected under 35 U.S.C. §103(a) as being obvious over Martin et al. in view of Dawson et al. Claims 4 and 32 are ultimately

dependent upon independent claims 1 and 29, respectively. As was mentioned above, Appellant believes independent claims 1 and 29 to be patentably distinguishable from Martin et al. It is respectfully submitted that Dawson et al. does not remedy the inability of Martin et al. to teach or suggest the claim limitations of independent claims 1 and 29. Therefore, Appellant submits that dependent claims 4 and 32 are patentable at least for their dependency on independent claims 1 and 29. Further, due to their chain of dependency, Appellant submits that claims 4 and 32 are also patentable for the same reasons discussed above in support of the patentability of claims 3 and 31. Still further, Appellant submits that dependent claims 4 and 32 are patentable based on the merit of their own recited claim limitations.

Dependent claims 4 and 32 generally pertain to the acquisition of an ancillary image indication within the context of the creation and display of an ancillary image relative to a cursor image. In accordance with the claims, an ALPHA-mask is obtained based on a cursor AND-mask. The cited references simply make no reference to the claimed acquisition of an ALPHA-mask or any equivalent thereof. Therefore, the cited references do not teach or suggest the elements of claims 4 and 32.

For all of these reasons, Appellant respectfully requests that the Board reverse the Examiner's rejection of claims 4 and 32.

#### **Group IV: Claims 5 and 33**

In the Final Office Action, claims 5 and 33 were rejected under 35 U.S.C. §103(a) as being obvious over Martin et al. in view of Dawson et al. Claims 5 and 33 are ultimately dependent upon independent claims 1 and 29, respectively. As was mentioned above, Appellant believes independent claims 1 and 29 to be patentably distinguishable from Martin et al. and Dawson et al. Therefore, Appellant submits that dependent claims 5 and 33 are

patentable at least for their dependency on independent claims 1 and 29. Further, due to their chain of dependency, Appellant submits that claims 5 and 33 are also patentable for the same reasons discussed above in support of the patentability of claims 3, 4, 31, and 32. Still further, Appellant submits that dependent claims 5 and 33 are patentable based on the merit of their own recited claim limitations.

Dependent claims 5 and 33 generally pertain to the acquisition of a cursor indication within the context of the creation and display of an ancillary image relative to a cursor image. In accordance with the claims, an AND-mask is defined as including a bitmap having dimensions of a bitmap defining the cursor image. The cited references simply make no reference to the claimed process or any equivalent thereof. Therefore, the cited references do not teach or suggest the elements of claims 5 and 33.

For all of these reasons, Appellant respectfully requests that the Board reverse the Examiner's rejection of claims 5 and 33.

#### **Group V: Claims 6 and 34**

In the Final Office Action, claims 6 and 34 were rejected under 35 U.S.C. §103(a) as being obvious over Martin et al. in view of Dawson et al. Claims 6 and 34 are ultimately dependent upon independent claims 1 and 29, respectively. As was mentioned above, Appellant believes independent claims 1 and 29 to be patentably distinguishable from Martin et al. and Dawson et al. Therefore, Appellant submits that dependent claims 5 and 33 are patentable at least for their dependency on independent claims 1 and 29. Further, due to their chain of dependency, Appellant submits that claims 6 and 34 are also patentable for the same reasons discussed above in support of the patentability of claims 3, 4, 5, 32, and 33. Still further, Appellant submits that

dependent claims 6 and 34 are patentable based on the merit of their own recited claim limitations.

Dependent claims 6 and 34 generally pertain to the acquisition of an ancillary image indication within the context of the creation and display of an ancillary image relative to a cursor image. In accordance with the claims, an ALPHA mask is obtained utilizing a particularly defined procedure. The cited references simply make no reference to the claimed procedure or any equivalent thereof. Therefore, the cited references do not teach or suggest the elements of claims 6 and 34.

For all of these reasons, Appellant respectfully requests that the Board reverse the Examiner's rejection of claims 6 and 34.

**Group VI: Claims 7 and 35**

In the Final Office Action, claims 7 and 35 were rejected under 35 U.S.C. §103(a) as being obvious over Martin et al. in view of Dawson et al. Claims 7 and 35 are ultimately dependent upon independent claims 1 and 29, respectively. As was mentioned above, Appellant believes independent claims 1 and 29 to be patentably distinguishable from Martin et al. and Dawson et al. Therefore, Appellant submits that dependent claims 7 and 35 are patentable at least for their dependency on independent claims 1 and 29. Further, due to their chain of dependency, Appellant submits that claims 7 and 35 are also patentable for the same reasons discussed above in support of the patentability of claims 3, 4, 5, 6, 32, 33 and 34. Still further, Appellant submits that dependent claims 7 and 35 are patentable based on the merit of their own recited claim limitations.

Dependent claims 7 and 35 generally pertain to the acquisition of an ancillary image indication within the context of the creation and display of an ancillary image relative to a cursor image. In accordance with the claims, translucent values

are offset by a predetermined offset value. The cited references simply make no reference to the claimed offset procedure or any equivalent thereof. Therefore, the cited references do not teach or suggest the elements of claims 7 and 35.

For all of these reasons, Appellant respectfully requests that the Board reverse the Examiner's rejection of claims 7 and 35.

**Group VII: Claims 8 and 36**

In the Final Office Action, claims 8 and 36 were rejected under 35 U.S.C. §103(a) as being obvious over Martin et al. in view of Dawson et al. Claims 8 and 36 are ultimately dependent upon independent claims 1 and 29, respectively. As was mentioned above, Appellant believes independent claims 1 and 29 to be patentably distinguishable from Martin et al. and Dawson et al. Therefore, Appellant submits that dependent claims 8 and 36 are patentable at least for their dependency on independent claims 1 and 29. Further, due to their chain of dependency, Appellant submits that claims 8 and 36 are also patentable for the same reasons discussed above in support of the patentability of claims 3, 4, 5, 6, 32, 33 and 34. Still further, Appellant submits that dependent claims 8 and 36 are patentable based on the merit of their own recited claim limitations. \*

Dependent claims 8 and 36 generally pertain to the acquisition of an ancillary image indication within the context of the creation and display of an ancillary image relative to a cursor image. In accordance with the claims, translucent values are offset in accordance with an offset value obtained based on a dynamically changing variable. The cited references simply make no reference to such a repositioning procedure or any equivalent thereof. Therefore, the cited references do not teach or suggest the elements of claims 8 and 36.

For all of these reasons, Appellant respectfully

requests that the Board reverse the Examiner's rejection of claims 8 and 36.

**Group VIII: Claims 9 and 37**

In the Final Office Action, claims 9 and 37 were rejected under 35 U.S.C. §103(a) as being obvious over Martin et al. in view of Dawson et al. Claims 9 and 37 are ultimately dependent upon independent claims 1 and 29, respectively. As was mentioned above, Appellant believes independent claims 1 and 29 to be patentably distinguishable from Martin et al. and Dawson et al. Therefore, Appellant submits that dependent claims 9 and 37 are patentable at least for their dependency on independent claims 1 and 29. Further, due to their chain of dependency, Appellant submits that claims 9 and 37 are also patentable for the same reasons discussed above in support of the patentability of claims 3, 4, 5, 6, 8, 32, 33, 34 and 36. Still further, Appellant submits that dependent claims 9 and 37 are patentable based on the merit of their own recited claim limitations.

Dependent claims 9 and 37 generally pertain to the acquisition of an ancillary image indication within the context of the creation and display of an ancillary image relative to a cursor image. In accordance with the claims, a desired offset value is obtained based on a displayed position of the cursor image. The cited references simply make no reference to an acquisition of such an offset value. Therefore, the cited references do not teach or suggest the elements of claims 9 and 37.

For all of these reasons, Appellant respectfully requests that the Board reverse the Examiner's rejection of claims 9 and 37.

**Group IX: Claims 10 and 38**

In the Final Office Action, claims 10 and 38 were

rejected under 35 U.S.C. §103(a) as being obvious over Martin et al. in view of Dawson et al. Claims 10 and 38 are ultimately dependent upon independent claims 1 and 29, respectively. As was mentioned above, Appellant believes independent claims 1 and 29 to be patentably distinguishable from Martin et al. and Dawson et al. Therefore, Appellant submits that dependent claims 10 and 38 are patentable at least for their dependency on independent claims 1 and 29. Further, due to their chain of dependency, Appellant submits that claims 10 and 38 are also patentable for the same reasons discussed above in support of the patentability of claims 3, 4, 5, 6, 8, 9, 32, 33, 34, 36 and 37. Still further, Appellant submits that dependent claims 10 and 38 are patentable based on the merit of their own recited claim limitations.

Dependent claims 10 and 38 generally pertain to the acquisition of an ancillary image indication within the context of the creation and display of an ancillary image relative to a cursor image. In accordance with the claims, a desired offset value is obtained based on a displayed position of the cursor image and a time of day. The cited references simply make no reference to an acquisition of such an offset value. Therefore, the cited references do not teach or suggest the elements of claims 10 and 38.

For all of these reasons, Appellant respectfully requests that the Board reverse the Examiner's rejection of claims 10 and 38.

**Group X: Claims 11 and 39**

In the Final Office Action, claims 11 and 39 were rejected under 35 U.S.C. §103(a) as being obvious over Martin et al. in view of Dawson et al. Claims 11 and 39 are ultimately dependent upon independent claims 1 and 29, respectively. As was mentioned above, Appellant believes independent claims 1 and 29 to be patentably distinguishable from Martin et al. and Dawson et al.



Therefore, Appellant submits that dependent claims 11 and 39 are patentable at least for their dependency on independent claims 1 and 29. Further, due to their chain of dependency, Appellant submits that claims 11 and 39 are also patentable for the same reasons discussed above in support of the patentability of claims 3, 4, 5, 6, 8, 32, 33, 34, and 36. Still further, Appellant submits that dependent claims 11 and 39 are patentable based on the merit of their own recited claim limitations.

Dependent claims 11 and 39 generally pertain to the acquisition of an ancillary image indication within the context of the creation and display of an ancillary image relative to a cursor image. In accordance with the claims, a desired offset value is obtained based on data associated with an image underlying a displayed position of the cursor image. The cited references simply make no reference to an acquisition of such an offset value. Therefore, the cited references do not teach or suggest the elements of claims 11 and 39.

For all of these reasons, Appellant respectfully requests that the Board reverse the Examiner's rejection of claims 11 and 39.

#### **Group XI: Claims 12 and 40**

In the Final Office Action, claims 12 and 40 were rejected under 35 U.S.C. §103(a) as being obvious over Martin et al. in view of Dawson et al. Claims 12 and 40 are ultimately dependent upon independent claims 1 and 29, respectively. As was mentioned above, Appellant believes independent claims 1 and 29 to be patentably distinguishable from Martin et al. and Dawson et al. Therefore, Appellant submits that dependent claims 12 and 40 are patentable at least for their dependency on independent claims 1 and 29. Further, due to their chain of dependency, Appellant submits that claims 12 and 40 are also patentable for the same reasons discussed above in support of the patentability of claims

3, 4, 5, 6, 8, 32, 33, 34, and 36. Still further, Appellant submits that dependent claims 12 and 40 are patentable based on the merit of their own recited claim limitations.

Dependent claims 12 and 40 generally pertain to the acquisition of an ancillary image indication within the context of the creation and display of an ancillary image relative to a cursor image. In accordance with the claims, a desired offset value is obtained based on an operator input from a pointing device. The cited references simply make no reference to an acquisition of such an offset value. Therefore, the cited references do not teach or suggest the elements of claims 12 and 40.

For all of these reasons, Appellant respectfully requests that the Board reverse the Examiner's rejection of claims 12 and 40.

**Group XII: Claims 13 and 41**

In the Final Office Action, claims 13 and 41 were rejected under 35 U.S.C. §103(a) as being obvious over Martin et al. in view of Dawson et al. Claims 13 and 41 are ultimately dependent upon independent claims 1 and 29, respectively. As was mentioned above, Appellant believes independent claims 1 and 29 to be patentably distinguishable from Martin et al. and Dawson et al. Therefore, Appellant submits that dependent claims 13 and 41 are patentable at least for their dependency on independent claims 1 and 29. Further, due to their chain of dependency, Appellant submits that claims 13 and 41 are also patentable for the same reasons discussed above in support of the patentability of claims 3, 4, 5, 6, 8, 32, 33, and 34. Still further, Appellant submits that dependent claims 13 and 41 are patentable based on the merit of their own recited claim limitations.

Dependent claims 13 and 41 generally pertain to the acquisition of an ancillary image indication within the context of

the creation and display of an ancillary image relative to a cursor image. In accordance with the claims, a desired offset value is obtained based on a size dimension of the cursor image. The cited references simply make no reference to an acquisition of such an offset value. Therefore, the cited references do not teach or suggest the elements of claims 13 and 41.

For all of these reasons, Appellant respectfully requests that the Board reverse the Examiner's rejection of claims 13 and 41.

**Group XIII: Claims 14 and 42**

In the Final Office Action, claims 14 and 42 were rejected under 35 U.S.C. §103(a) as being obvious over Martin et al. in view of Dawson et al. Claims 14 and 42 are ultimately dependent upon independent claims 1 and 29, respectively. As was mentioned above, Appellant believes independent claims 1 and 29 to be patentably distinguishable from Martin et al. and Dawson et al. Therefore, Appellant submits that dependent claims 14 and 42 are patentable at least for their dependency on independent claims 1 and 29. Further, due to their chain of dependency, Appellant submits that claims 14 and 42 are also patentable for the same reasons discussed above in support of the patentability of claims 3, 4, and 32. Still further, Appellant submits that dependent claims 14 and 42 are patentable based on the merit of their own recited claim limitations.

Dependent claims 14 and 42 generally pertain to the display of a composite cursor image having cursor and ancillary image components. In accordance with the claims, the ancillary image and the cursor image are blended to a display screen based on the ALPHA-mask and the AND-mask, respectively. The cited references simply make no reference to such a process for displaying an ancillary image. Therefore, the cited references do not teach or suggest the elements of claims 14 and 42.

For all of these reasons, Appellant respectfully requests that the Board reverse the Examiner's rejection of claims 14 and 42.

**Group XIV: Claims 15 and 43**

In the Final Office Action, claims 15 and 43 were rejected under 35 U.S.C. §103(a) as being obvious over Martin et al. in view of Dawson et al. Claims 15 and 43 are ultimately dependent upon independent claims 1 and 29, respectively. As was mentioned above, Appellant believes independent claims 1 and 29 to be patentably distinguishable from Martin et al. and Dawson et al. Therefore, Appellant submits that dependent claims 15 and 43 are patentable at least for their dependency on independent claims 1 and 29. Further, due to their chain of dependency, Appellant submits that claims 15 and 43 are also patentable for the same reasons discussed above in support of the patentability of claims 3, 4, 14, 32 and 42. Still further, Appellant submits that dependent claims 15 and 43 are patentable based on the merit of their own recited claim limitations.

Dependent claims 15 and 43 generally pertain to the display of a composite cursor image having cursor and ancillary image components. In accordance with the claims, a composite image is blended to the display screen. The cited references simply make no reference to such a process for displaying an ancillary image. Therefore, the cited references do not teach or suggest the elements of claims 15 and 43.

For all of these reasons, Appellant respectfully requests that the Board reverse the Examiner's rejection of claims 15 and 43.

**Group XV: Claim 16**

In the Final Office Action, claim 16 was rejected under 35 U.S.C. §103(a) as being obvious over Martin et al. in view of

Dawson et al. Claim 16 is ultimately dependent upon independent claim 1. As was mentioned above, Appellant believes independent claim 1 to be patentably distinguishable from Martin et al. and Dawson et al. Therefore, Appellant submits that dependent claim 16 is patentable at least for its dependency on independent claim 1.

Further, due to its chain of dependency, Appellant submits that claim 16 is also patentable for the same reasons discussed above in support of the patentability of claims 3, 4, and 14. Still further, Appellant submits that dependent claim 16 is patentable based on the merit of its own recited claim limitations.

Dependent claim 16 generally pertains to the display of a composite cursor image having cursor and ancillary image components. In accordance with the claims, a temporary bitmap is utilized to assist in the blending and display process. The cited references simply make no reference to such a process for blending and displaying. Therefore, the cited references do not teach or suggest the elements of claim 16.

For all of these reasons, Appellant respectfully requests that the Board reverse the Examiner's rejection of claim 16.

#### **Group XVI: Claims 17 and 44**

In the Final Office Action, claims 17 and 44 were rejected under 35 U.S.C. §103(a) as being obvious over Martin et al. in view of Dawson et al. Claims 17 and 44 are ultimately dependent upon independent claims 1 and 29, respectively. As was mentioned above, Appellant believes independent claims 1 and 29 to be patentably distinguishable from Martin et al. and Dawson et al. Therefore, Appellant submits that dependent claims 17 and 44 are patentable at least for their dependency on independent claims 1 and 29. Further, due to their chain of dependency, Appellant submits that claims 17 and 44 are also patentable for the same reasons discussed above in support of the patentability of claims

3, 4 and 32. Still further, Appellant submits that dependent claims 17 and 44 are patentable based on the merit of their own recited claim limitations.

Dependent claims 17 and 44 generally pertain to the display of a composite cursor image having cursor and ancillary image components. In accordance with the claims, an ancillary image is blended to a display screen in accordance with a particularly described function. The cited references simply make no reference to such a process for displaying an ancillary image. Therefore, the cited references do not teach or suggest the elements of claims 17 and 44.

For all of these reasons, Appellant respectfully requests that the Board reverse the Examiner's rejection of claims 17 and 44.

**Group XVII: Claims 18 and 45**

In the Final Office Action, claims 18 and 45 were rejected under 35 U.S.C. §103(a) as being obvious over Martin et al. in view of Dawson et al. Claims 18 and 45 are ultimately dependent upon independent claims 1 and 29, respectively. As was mentioned above, Appellant believes independent claims 1 and 29 to be patentably distinguishable from Martin et al. and Dawson et al. Therefore, Appellant submits that dependent claims 18 and 45 are patentable at least for their dependency on independent claims 1 and 29. Further, due to their chain of dependency, Appellant submits that claims 18 and 45 are also patentable for the same reasons discussed above in support of the patentability of claims 3, 4 and 32. Still further, Appellant submits that dependent claims 18 and 45 are patentable based on the merit of their own recited claim limitations.

Dependent claims 18 and 45 generally pertain to the acquisition of an ancillary indication during the creation and display of an ancillary image relative to a cursor image. In

accordance with the claims, an ALPHA-mask is softened. The cited references simply make no reference to such a softening process. Therefore, the cited references do not teach or suggest the elements of claims 18 and 45.

For all of these reasons, Appellant respectfully requests that the Board reverse the Examiner's rejection of claims 18 and 45.

**Group XVIII: Claims 19 and 46**

In the Final Office Action, claims 19 and 46 were rejected under 35 U.S.C. §103(a) as being obvious over Martin et al. in view of Dawson et al. Claims 19 and 46 are ultimately dependent upon independent claims 1 and 29, respectively. As was mentioned above, Appellant believes independent claims 1 and 29 to be patentably distinguishable from Martin et al. and Dawson et al. Therefore, Appellant submits that dependent claims 19 and 46 are patentable at least for their dependency on independent claims 1 and 29. Further, due to their chain of dependency, Appellant submits that claims 19 and 46 are also patentable for the same reasons discussed above in support of the patentability of claims 3, 4, 18 and 32 and 45. Still further, Appellant submits that dependent claims 19 and 46 are patentable based on the merit of their own recited claim limitations.

Dependent claims 19 and 46 generally pertain to the acquisition of an ancillary indication during the creation and display of an ancillary image relative to a cursor image. In accordance with the claims, an ALPHA-mask is filtered. The cited references simply make no reference to such a filtering process. Therefore, the cited references do not teach or suggest the elements of claims 19 and 46.

For all of these reasons, Appellant respectfully requests that the Board reverse the Examiner's rejection of claims 19 and 46.

**Group XIX: Claims 20 and 47**

In the Final Office Action, claims 20 and 47 were rejected under 35 U.S.C. §103(a) as being obvious over Martin et al. in view of Dawson et al. Claims 20 and 47 are ultimately dependent upon independent claims 1 and 29, respectively. As was mentioned above, Appellant believes independent claims 1 and 29 to be patentably distinguishable from Martin et al. and Dawson et al. Therefore, Appellant submits that dependent claims 20 and 47 are patentable at least for their dependency on independent claims 1 and 29. Further, due to their chain of dependency, Appellant submits that claims 20 and 47 are also patentable for the same reasons discussed above in support of the patentability of claims 3, 4, 18, 19 and 32, 45 and 46. Still further, Appellant submits that dependent claims 20 and 47 are patentable based on the merit of their own recited claim limitations.

Dependent claims 20 and 47 generally pertain to the acquisition of an ancillary indication during the creation and display of an ancillary image relative to a cursor image. In accordance with the claims, an ALPHA-mask is filtered a particular number of times. The cited references simply make no reference to such a filtering process. Therefore, the cited references do not teach or suggest the elements of claims 20 and 47.

For all of these reasons, Appellant respectfully requests that the Board reverse the Examiner's rejection of claims 20 and 47.

**Group XX: Claim 21**

In the Final Office Action, claim 21 was rejected under 35 U.S.C. §102(b) as being anticipated by Martin et al. Claim 21 is dependent upon independent claim 1. As was mentioned above, Appellant believes independent claim 1 to be patentably distinguishable from Martin et al. Therefore, Appellant submits



that dependent claim 21 is patentable at least for its dependency on independent claim 1. Further, Appellant submits that dependent claim 21 is patentable based on the merit of its own claim limitations.

Dependent claim 21 generally pertains to the display of a composite cursor image comprised of a cursor image and an associated ancillary image. Dependent claim 21 states that the ancillary image appears as a shadow of the cursor image. The cited reference simply makes no teaching or suggestion of such a composite image. Therefore, the cited reference does not teach or suggest the element of claim 21.

For all of these reasons, Appellant respectfully requests that the Board reverse the Examiner's rejection of claim 21.

**Group XXI: Claim 22**

In the Final Office Action, claim 22 was rejected under 35 U.S.C. §102(b) as being anticipated by Martin et al. Claim 22 is dependent upon independent claim 1. As was mentioned above, Appellant believes independent claim 1 to be patentably distinguishable from Martin et al. Therefore, Appellant submits that dependent claim 22 is patentable at least for its dependency on independent claim 1. Further, Appellant submits that dependent claim 22 is patentable based on the merit of its own recited claim limitations.

Dependent claim 22 generally pertains to the creation and display of a composite cursor image comprising a cursor image and its associated ancillary image. Claim 22 states that the ancillary image appears as an image formed by light impinging on a surface after passing through the cursor image. The cited reference simply makes no teaching or suggestion of such an ancillary image. Therefore, the cited reference does not teach or suggest the elements of dependent claim 22.

For all of these reasons, Appellant respectfully requests that the Board reverse the Examiner's rejection of claim 22.

**Group XXII: Claims 23 and 26**

In the Final Office Action, claims 23 and 26 were rejected under 35 U.S.C. §102(b) as being anticipated by Martin et al. Claims 23 and 26 are both independent claims.

In order to reject a claim under 35 U.S.C. §102(b), the Examiner must find every limitation of the claim in the cited reference. Appellant respectfully submits that independent claims 23 and 26 recite limitations that are neither taught nor suggested by Martin et al.

Independent claims 23 and 26 specifically state that a recited ancillary image is based on at least one characteristic of the cursor image. Further, as claimed, the ancillary image is displayed "as an image formed by light impinging on a surface after passing through the cursor image." As one example to illustrate this claim, the specification of the Application now at issue states that the ancillary image could represent, for example, light after it has passed through a transparent liquid medium, such as water. Of course, this is but one exemplary embodiment covered by the claims.

To meet this limitation, the Examiner in the Final Office Action pointed to shadow 620 in FIG. 6A of Martin et al. The shadow 620 is being cast in FIG. 6A by a pencil. It is generally understood that light does not pass through a pencil. Nor is there any teaching or discussion, whatsoever, that shadow 620 is displayed to look like light impinging on the work surface after it has passed through the pencil. In fact, pencil 616 is not taught, or discussed, or illustrated by stippling in figure, as being an item through which light can pass. Therefore, Martin et al. simply can not be viewed as anticipating independent claims 23

and 26, which state that the ancillary image is displayed "as an image formed by light impinging on a surface after passing through the cursor image."

Thus, independent claims 23 and 26 recite elements that are neither taught nor suggested by the cited reference. It is therefore respectfully submitted that these claims are allowable in their present form. Accordingly, Appellant respectfully requests that the Board reverse the Examiner's rejection of claims 23 and 26.

**Group XXIII: Claims 48 and 49**

In the Final Office Action, claims 48 and 49 were rejected under 35 U.S.C. §102(b) as being anticipated by Martin et al. Claims 48 and 49 were also rejected under 35 U.S.C. §103(a) as being obvious over Martin et al. in view of Dawson et al. Claim 48 is an independent claim. Claim 49 is dependent upon claim 48.

With regard to the rejection under §102, the Examiner made no specific reasoned rejection of independent claim 48. Therefore, Appellant has been left to assume that the rejection of claim 48 and its associated dependent claim 49 under §102 was an error. In any case, there is no indication in Martin et al. of displaying a cursor as an AGRB alpha blended image. Further, there is no indication that a cursor indication is obtained from an application. Therefore, claims 48 and 49 recite limitations that are not taught by Martin et al. Therefore, it is respectfully submitted that Martin et al. cannot anticipate claims 48 and 49.

It is further submitted that independent claim 48 and dependent claim 49 are not obvious in view of the cited combination of references. Claims 48 and 49 require a cursor to be displayed as "an alpha blended AGRB image". The portion of Dawson et al. cited by the Examiner to meet this limitation (column 6, lines 50-65) neither teaches nor suggests this limitation. That portion of the document simply states that each

pixel is represented in the frame buffer by 24 bits, 8 bits for each of the colors red, green and blue. Dawson et al. states that the process of determining the cursor color (to be half of the total scale of shades away from the background color) is simply repeated for each of the colors red, green and blue which define the selected pixel color. Of course, this has nothing to do with displaying a cursor as an alpha blended AGRB image or creating any type of ancillary image or shadow. Neither does Martin et al. make such a teaching or suggestion. Applicant again reiterates that the Examiner also failed to provide any motivation to combine the references.

For all of these reasons, Applicant respectfully submits that claims 48 and 49 are allowable in view of Martin et al. and Dawson et al. Accordingly, Appellant respectfully requests that the Board reverse the Examiner's rejection of claims 48 and 49.

**Group XXIV: Claim 50**

In the Final Office Action, dependent claim 50 was rejected under 35 U.S.C. §102(b) as being anticipated by Martin et al. Claim 50 was also rejected under 35 U.S.C. §103(a) as being obvious over Martin et al. in view of Dawson et al. Claim 50 is dependent upon independent claim 48.

It is respectfully submitted that dependent claim 50 is patentable at least for its dependency upon claim 48, which Appellant believes to be independently patentable. Further, Appellant also respectfully submits that dependent claim 50 is patentable based on the merit of its own claim elements. Dependent claim 50 recites obtaining a cursor indication as indicative of a composite image with per pixel alpha and color values. The cited references simply do not teach or suggest this claim element. The Examiner points to Dawson et al. at column 2, lines 15-25, but that section simply does not teach or suggest a cursor indication

indicative of a composite image as recited.

Thus, dependent claim 50 recites elements that are neither taught nor suggested by the cited reference. It is therefore respectfully submitted that this claim is allowable in its present form. Accordingly, Appellant respectfully requests that the Board reverse the Examiner's rejection of claim 50.

**Group XXV: Claim 51**

In the Final Office Action, claim 51 was rejected under 35 U.S.C. §102(b) as being anticipated by Martin et al. Claim 51 was also rejected under 35 U.S.C. §103(a) as being obvious over Martin et al. in view of Dawson et al. Claim 51 is an independent claim.

With regard to the rejection under §102, the Examiner made no specific reasoned rejection of independent claim 51. Therefore, Appellant has been left to assume that the rejection of claim 51 under §102 was an error. In any case, there is no indication in Martin et al. of displaying a cursor as an AGRB alpha blended image. Therefore, claim 51 recites limitations that are not taught by Martin et al. Therefore, it is respectfully submitted that Martin et al. cannot anticipate claim 51.

It is further submitted that independent claim 51 is not obvious in view of the cited combination of references. Claim 51 requires a cursor to be displayed as "an alpha blended AGRB image". The portion of Dawson et al. cited by the Examiner to meet this limitation (column 6, lines 50-65) neither teaches nor suggests this limitation. That portion of the document simply states that each pixel is represented in the frame buffer by 24 bits, 8 bits for each of the colors red, green and blue. Dawson et al. states that the process of determining the cursor color (to be half of the total scale of shades away from the background color) is simply repeated for each of the colors red, green and blue which define the selected pixel color. Of course, this has

nothing to do with displaying a cursor as an alpha blended AGRB image or creating any type of ancillary image or shadow. Neither does Martin et al. make such a teaching or suggestion. Applicant again reiterates that the Examiner also failed to provide any motivation to combine the references.

For all of these reasons, Applicant respectfully submits that claim 51 is allowable in view of Martin et al. and Dawson et al. Accordingly, Appellant respectfully requests that the Board reverse the Examiner's rejection of claim 51.

**Group XXVI: Claim 52**

In the Final Office Action, claim 52 was rejected under 35 U.S.C. §102(b) as being anticipated by Martin et al. Claim 51 was also rejected under 35 U.S.C. §103(a) as being obvious over Martin et al. in view of Dawson et al. Claim 52 is dependent upon independent claim 51.

It is respectfully submitted that dependent claim 52 is patentable at least for its dependency on independent claim 51. However, it is further submitted that dependent claim 52 is patentable based on the merit of its own claim elements. Claim 52 recites a composite image with per pixel alpha and color values. As was stated above in relation to claim 50, cited references make no teaching or suggestion of such a composite image.

Thus, dependent claim 52 recites elements that are neither taught nor suggested by the cited reference. It is therefore respectfully submitted that this claim is allowable in its present form. Accordingly, Appellant respectfully requests that the Board reverse the Examiner's rejection of claim 52.

**Group XXVII: Claims 53 and 56**

In the Final Office Action, claims 53 and 56 were rejected under 35 U.S.C. §102(b) as being anticipated by Martin et al. Claims 53 and 56 are both independent claims.

It is respectfully submitted that claims 53 and 56 recite limitations that are neither taught nor suggested by Martin et al. Claims 53 and 56 both specifically state that a recited shadow and cursor are "formed integrally together" (claim 53) or displayed "as a single image" (Claim 56). This is neither taught nor suggested anywhere by Martin et al. As stated above with respect to independent claims 1 and 29, Martin et al. does not teach any method, whatsoever of how the images are created, such as whether they are formed as a single image and displayed a single image, by whether they are formed as multiple image and displayed similarly. The portion of Martin et al. that the Examiner cites as meeting the limitations of claims 53 and 56 (Column 8, lines 15-25) actually teaches that the shadow is removed from a selected tool representation when the signal generation device 862 has been activated. Of course, this simply does not teach or suggest that the shadow and cursor are "formed integrally with another" or that they are displayed as a "single image". Thus, Martin et al. cannot anticipate independent claims 53 and 56.

Thus, claims 53 and 56 recite elements that neither taught nor suggested by the cited reference. It is therefore respectfully submitted that these claims are allowable in their present form. Accordingly, Appellant respectfully requests that the Board reverse the Examiner's rejection of claims 53 and 56.

Conclusion

For the reasons discussed above, Appellant submits that independent claims 1, 23, 26, 29, 48, 51, 53 and 56 are allowable over the references cited by the Examiner. Applicant further submits that dependent claims 3-22, 31-47, 49-50 and 52 are allowable both independent and by virtue of their dependence on allowable independent claims. As such, Appellant respectfully requests that claims 1, 3-23, 26, 29, 31-53, and 56 be allowed.

Respectfully submitted,

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CLH/rkp



Exhibit A

CLAIMS ON APPEAL

1. A method of displaying a cursor, comprising:  
obtaining a cursor image indication, indicative of a cursor image;  
obtaining an ancillary image indication, indicative of an ancillary image, based on the cursor image indication;  
forming a composite image indication indicative of a composite image containing both the cursor image and the ancillary image, a location at which the ancillary image is located being based on a location at which the cursor image is located; and,  
displaying the composite image.
3. The method of claim 1 wherein obtaining a cursor indication comprises:  
obtaining a cursor AND-mask.
4. The method of claim 3 wherein obtaining an ancillary image indication comprises:  
obtaining an ALPHA-mask based on the cursor AND-mask.
5. The method of claim 4 wherein the cursor AND-mask comprises a bitmap having dimensions similar to dimensions of a bitmap defining the cursor image, and wherein each bit defines whether a display by a corresponding pixel is visible or non-visible.
6. The method of claim 5 wherein obtaining an ALPHA-mask comprises:  
enlarging the AND-mask to include a border;  
translating values in the AND-mask bitmap from visible values corresponding to a visible portion of the cursor

image to translucent values; and  
repositioning the translucent values within the enlarged  
AND-mask by a desired offset value.

7. The method of claim 6 wherein repositioning comprises:  
repositioning the translucent values by a predetermined  
offset value.
8. The method of claim 6 wherein the repositioning step  
comprises:  
obtaining the desired offset value based on a dynamically  
changing variable; and  
repositioning the translucent values based on the obtained  
offset value.
9. The method of claim 8 wherein obtaining the desired offset  
value comprises:  
obtaining the desired offset value based on a displayed  
position of the cursor image.
10. The method of claim 9 wherein obtaining the desired offset  
value comprises:  
obtaining the desired offset value based on a displayed  
position of the cursor image and a time of day.
11. The method of claim 8 wherein obtaining the desired offset  
value comprises:  
obtaining the desired offset value based on data associated  
with an image underlying a displayed position of the  
cursor image.
12. The method of claim 8 wherein obtaining the desired offset

value comprises:

obtaining the desired offset value based on an operator input from a pointing device.

13 The method of claim 8 wherein obtaining the desired offset value comprises:

obtaining the desired offset value based on a size dimension of the cursor image.

14. The method of claim 4 wherein the displaying step comprises: blending the ancillary image to a display screen based on the ALPHA-mask; and  
blending the cursor image to the display screen based on the cursor AND-mask.

15. The method of claim 14 wherein blending the ancillary image and blending the cursor image are performed by blending a composite image, including an ancillary image component and a cursor image component, to the display screen.

16. The method of claim 14 wherein blending the ancillary image and blending the cursor image each comprise:

blending the ancillary image and the cursor image to a temporary bitmap; and

copying the contents of the temporary bitmap to the display screen.

17. The method of claim 4 wherein the displaying step comprises: blending the ancillary image to a display screen according to a function having a first term corresponding to a portion of the ancillary image displayed and a second term corresponding to a portion of an underlying image displayed.

18. The method of claim 4 and further comprising:  
softening the ALPHA-mask.
19. The method of claim 18 wherein the softening step comprises:  
filtering the ALPHA-mask with an averaging filter a desired  
number of times.
20. The method of claim 19 wherein the desired number of times  
is based on data associated with an image underlying a displayed  
position of the cursor image.
21. The method of claim 1 wherein the ancillary image appears as  
a shadow of the cursor image.
22. The method of claim 1 wherein the ancillary image appears as  
an image formed by light impinging on a surface after passing  
through the cursor image.
23. A computer system, comprising:  
a user input device providing a user input signal indicative  
of user inputs;  
a display device;  
a controller, coupled to the user input device and the  
display device, configured to receive the user input  
signal, display a cursor image on the display device  
based on the user input signal, and display an  
ancillary image based on at least one characteristic of  
the cursor image, the controller being configured to  
display the ancillary image to move based on movement  
of the cursor image on the display device; and  
the controller being configured to display the ancillary  
image as an image formed by light impinging on a

surface after passing through the cursor image.

26. A display on a computer display device, the display comprising:

- a cursor image displayed on the display device based on a user input; and

- an ancillary image displayed on the display device at a position based on a position of the cursor image and having an appearance based on an appearance characteristic of the cursor image, and appearing as an image formed by light impinging on a surface after passing through the cursor image.

29. A computer readable medium containing instructions which, when executed by a computer cause the computer to perform steps of:

- obtaining a cursor image indication, indicative of a cursor image;

- obtaining an ancillary image indication, indicative of an ancillary image, based on the cursor image indication;

- forming a composite image indication indicative of a composite image containing both the cursor image and the ancillary image,

- a location at which the ancillary image is located being based on a location at which the cursor image is located; and

- displaying the composite image.

31. The computer readable medium of claim 29 wherein obtaining a cursor indication comprises:

- obtaining a cursor AND-mask.

32. The computer readable medium of claim 29, further

comprising:

- wherein obtaining a cursor image indication comprises
  - obtaining a cursor AND-mask; and
- wherein obtaining an ancillary image indication comprises
  - obtaining an ALPHA-mask based on the cursor AND-mask.

33. The computer readable medium of claim 32 wherein the cursor AND-mask comprises a bitmap having dimensions similar to dimensions of a bitmap defining the cursor image, and wherein each bit defines whether a display by a corresponding pixel is visible or non-visible.

34. The computer readable medium of claim 33 wherein obtaining an ALPHA-mask comprises:

- enlarging the AND-mask to include a border;
- translating values in the AND-mask bitmap from visible values corresponding to a visible portion of the cursor image to translucent values; and
- repositioning the translucent values within the enlarged AND-mask by a desired offset value.

35. The computer readable medium of claim 34 wherein repositioning comprises:

- repositioning the translucent values by a predetermined offset value.

36. The computer readable medium of claim 34 wherein the repositioning step comprises:

- obtaining the desired offset value based on a dynamically changing variable; and
- repositioning the translucent values based on the obtained offset value.

37. The computer readable medium of claim 36 wherein obtaining the desired offset value comprises:

obtaining the desired offset value based on a displayed position of the cursor image.

38. The computer readable medium of claim 37 wherein obtaining the desired offset value comprises:

obtaining the desired offset value based on a displayed position of the cursor image and a time of day.

39. The computer readable medium of claim 36 wherein obtaining the desired offset value comprises:

obtaining the desired offset value based on data associated with an image underlying a displayed position of the cursor image.

40. The computer readable medium of claim 36 wherein obtaining the desired offset value comprises:

obtaining the desired offset value based on an operator input from a pointing device.

41. The computer readable medium of claim 34 wherein repositioning comprises:

obtaining the desired offset value based on dimensions of the cursor image.

42. The computer readable medium of claim 32 wherein the displaying step comprises:

blending the ancillary image to a display screen based on the ALPHA-mask; and

blending the cursor image to the display screen based on the cursor AND-mask.

43. The computer readable medium of claim 42 wherein blending the ancillary image and blending the cursor image are performed by blending a composite image, including an ancillary image component and a cursor image component, to the display screen.

44. The computer readable medium of claim 32 wherein the displaying step comprises:

blending the ancillary image to a display screen using according to a function having a first term corresponding to a portion of the ancillary image displayed and a second term corresponding to a portion of an underlying image displayed.

45. The computer readable medium of claim 32 and further comprising:

softening the ALPHA-mask.

46. The computer readable medium of claim 45 wherein the softening step comprises:

filtering the ALPHA-mask with an averaging filter a desired number of times.

47. The computer readable medium of claim 46 wherein the desired number of times is based on data associated with an image underlying a displayed position of the cursor image.

48. A method of displaying a cursor, comprising:

obtaining a cursor indication indicative of an alpha blended AGRB image; and  
displaying a cursor image based on the cursor indication.

49. The method of claim 48 wherein obtaining comprises:  
obtaining the cursor indication from an application.



50. The method of claim 48 wherein obtaining comprises:  
obtaining the cursor indication as indicative of a composite  
image with per pixel alpha and color values.
51. A display, comprising:  
a cursor displayed based on an alpha blended AGRB image.
52. The display of claim 51 wherein the cursor comprises:  
a composite image with per pixel alpha and color values.
53. A displayed image on a computer screen comprising:  
a cursor with a shadow; and  
wherein the shadow and the cursor are formed integrally with  
one another.
56. A computer readable medium having instructions stored  
thereon which, when executed, perform a method comprising:  
obtaining cursor information indicative of a cursor and a  
shadow; and  
displaying the cursor and shadow as a single image based on  
the cursor image information.

Exhibit B

U.S. Patent Number 5,655,066 to Martin et al.

Exhibit C

U.S. Patent Number 5,270,688 to Dawson et al.

Exhibit D

TABLE OF CASES CITED

In re Grasselli, 713 F.2d 731, 739, 218 USPQ 769, 775 (Fed. Cir. 1983).

In re Lee, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002)

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